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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,025	07/19/2001	Neil F. Schutzman	EMC-011PUS	9106
22494	7590	02/12/2004		
DALY, CROWLEY & MOFFORD, LLP SUITE 101 275 TURNPIKE STREET CANTON, MA 02021-2310			EXAMINER CHEN, CHONGSHAN	
			ART UNIT 2172	PAPER NUMBER 5

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,025

Applicant(s)

SCHÜTZMAN ET AL.

Examiner

Chongshan Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-24,34 and 36-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-24,34 and 36-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 7, lines 1-5 of the last paragraph, filed on November 26, 2003, with respect to the rejection(s) of claim(s) 1, 10, 15, 18-21 and 40-41 under 102(b) have been fully considered and are persuasive. However, the arguments are related to the newly added claim limitation. Upon further consideration, a new ground(s) of rejection is made in view of Fleeson (6,353,846). Please see the detail rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-24, 34, 36-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen (5,491,810) in view of Fleeson (6,353,846).

As per claim 1, Allen teaches a method comprising:

receiving a list a properties associated with storage (Allen, Fig. 4A & 4B, col. 3, lines 13-52);

choosing one or more of said properties to build an expression (Allen, col. 3, lines 13-52);

evaluating said expression to determine a pool of storage (Allen, col. 6, lines 10-60); and

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selecting a piece of storage having characteristics defined by the storage properties in the expression (Allen, col. 3, lines 13-52).

Allen does not explicitly disclose expression including at least one property and wherein when said expression includes more than one property then said expression further includes at least one logical operator which relate said one or more properties. Fleeson teaches expression including at least one property and wherein when said expression includes more than one property then said expression further includes at least one logical operator which relate said one or more properties (Fleeson, Fig. 8 & 9, col. 10, lines 6-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate an expression to select desired resource in the system of Allen in order to allocate proper resource to a particular resource request.

As per claim 2, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, except for explicitly disclosing receiving is done by a database administrator (DBA). However, Allen teaches a method of allocating storage space to user and a database administrator manages the database and storage space. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a database administrator (DBA) in the system of Allen in order to allow the DBA to select a best fit storage space for a particular storage request.

As per claim 3, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, except for explicitly disclosing choosing is done by a database administrator (DBA). However, Allen teaches a method of allocating storage space to user and a database administrator manages the database and storage space. Therefore, it would have been obvious to

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one of ordinary skill in the art at the time the invention was made to have a database administrator (DBA) in the system of Allen in order to allow the DBA to select a best fit storage space for a particular storage request.

As per claim 5, Allen and Fleeson teach all the claimed subject matters as discussed in claim 2, and further teach determining if all the properties received by the database administrator are all of the properties wanted by the database administrator (Allen, col. 6, lines 10-60).

As per claim 6, Allen and Fleeson teach all the claimed subject matters as discussed in claim 5, and further teach in response to all the properties received by the database administrator not being all of the properties desired by the database administrator, adding a property desired by the database administrator (Allen, col. 6, lines 10-60).

As per claim 7, Allen and Fleeson teach all the claimed subject matters as discussed in claim 6, and further teach selecting at least one new property to build the expression (Allen, col. 6, lines 10-60).

As per claim 8, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, except for explicitly disclosing step of evaluating is done by a storage administrator (SA). However, Allen teaches a method to evaluate requirements for a storage request and allocate storage space. There must be a storage administrator (SA) in Allen's invention in order to evaluate requirements for a storage request and find a best-fit storage space for user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a storage administrator in order to evaluate requirements for a storage request and find a best fit storage space for user.

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As per claim 9, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, except for explicitly disclosing selecting is done by a storage administrator (SA). However, Allen teaches a method to evaluate requirements for a storage request and allocate storage space. There must be a storage administrator (SA) in Allen's invention in order to evaluate requirements for a storage request and find a best-fit storage space for user. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a storage administrator in order to evaluate requirements for a storage request and find a best fit storage space for user.

As per claim 10, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, and further teach validating the storage for operation (Allen, col. 6, lines 10-60).

As per claim 11, Allen and Fleeson teach all the claimed subject matters as discussed in claim 10, except for explicitly disclosing indicating that when there is not enough storage for an operation providing an indication that the operation can not be carried out. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to indicate when there is not enough storage for an operation in order to provide user information about the status of the operation.

As per claim 12, Allen and Fleeson teach all the claimed subject matters as discussed in claim 10, except for explicitly disclosing in response to the validating indicating that there is enough storage for operation, then completing the operation. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to indicate that there is enough storage for operation so that the storage space can be selected and allocated for the operation.

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As per claim 13 Allen and Fleeson teach all the claimed subject matters as discussed in claim 10, except for explicitly disclosing in response to the validating indicating that there is not enough storage to complete the operation, then performing the operation with the storage which is available. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the operation with the storage which is available in order to perform the operation.

As per claim 14, Allen and Fleeson teach all the claimed subject matters as discussed in claim 10, except for explicitly disclosing in the response to the validating indicating that there is not enough storage to complete the operation then searching for more storage. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to search for more storage if there is not enough storage to complete the operation in order to perform the operation.

As per claim 15, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, and further teach assigning one or more storage properties to one or more pieces of storage; and associating at least one storage property with at least one piece of storage (Allen, col. 3, lines 13-52).

As per claim 16, Allen and Fleeson teach all the claimed subject matters as discussed in claim 15, except for explicitly disclosing said assigning is done by a storage administrator (SA). However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have said job done by a storage administrator (SA) because SA manager storage space.

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As per claim 17, Allen and Fleeson teach all the claimed subject matters as discussed in claim 15, except for explicitly disclosing said associating is done by a storage administrator (SA). However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have said job done by a storage administrator (SA) because SA manager storage space.

As per claim 18, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, and further teach generating one or more storage properties (Allen, col. 3, lines 13-52).

As per claim 19, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, and further teach identifying one or more properties to associate with a plurality of specific storage devices (Allen, col. 3, lines 13-52).

As per claim 20, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, and further teach the storage is not physical storage (Allen, Fig. 3).

As per claim 21, Allen and Fleeson teach all the claimed subject matters as discussed in claim 18, and further teach generating user-defined storage properties (Allen, col. 3, lines 13-52).

As per claim 22, Allen and Fleeson teach all the claimed subject matters as discussed in claim 16, and further teach determining if any of the system is identified as hands-off storage (Allen, col. 3, lines 13-52).

As per claim 23, Allen and Fleeson teach all the claimed subject matters as discussed in claim 16, and further teach determining if any of the storage is identified as can-use storage (Allen, col. 3, lines 13-52).

As per claim 24, Allen and Fleeson teach all the claimed subject matters as discussed in claim 1, except for explicitly disclosing said steps of receiving, choosing, evaluating and

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selecting are performed as part of an information recovery operation. However, Allen teaches requesting and allocating storage space, the usage of the allocated storage space is just a design choice. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Allen's method as part of an information recovery operation in order to select storage space.

As per claim 34, Allen teaches a method comprising the steps of:

receiving a list a properties (Allen, col. 3, lines 13-52); and

selecting one or more properties to build an expression (Allen, col. 3, lines 13-52).

Allen does not explicitly disclose receiving is done by a database administrator (DBA).

However, Allen teaches a method of allocating storage space to user and a database administrator manages the database and storage space. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a database administrator (DBA) in the system of Allen in order to allow the DBA to select a best fit storage space for a particular storage request.

Allen does not explicitly disclose expression including at least one property and wherein when said expression includes more than one property then said expression further includes at least one logical operator which relate said one or more properties. Fleeson teaches expression including at least one property and wherein when said expression includes more than one property then said expression further includes at least one logical operator which relate said one or more properties (Fleeson, Fig. 8 & 9, col. 10, lines 6-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate an

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expression to select desired resource in the system of Allen in order to allocate proper resource to a particular resource request.

Claims 36-38 are rejected on grounds corresponding to the reasons given above for claims 5-7.

Claim 39 is rejected on grounds corresponding to the reasons given above for claim 24.

As per claim 40, Allen teaches a method comprising:

evaluating an expression to determine a pool storage (Allen, col. 6, lines 10-60); and
selecting a piece of storage having characteristics defined by storage properties in the expression (Allen, col. 6, lines 10-60).

Allen does not explicitly disclose expression including at least one property and wherein when said expression includes more than one property then said expression further includes at least one logical operator which relate said one or more properties. Fleeson teaches expression including at least one property and wherein when said expression includes more than one property then said expression further includes at least one logical operator which relate said one or more properties (Fleeson, Fig. 8 & 9, col. 10, lines 6-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate an expression to select desired resource in the system of Allen in order to allocate proper resource to a particular resource request.

Claim 41 is rejected on grounds corresponding to the reasons given above for claim 10.

Claims 42-45 are rejected on grounds corresponding to the reasons given above for claims 11-14.

Claim 46 is rejected on grounds corresponding to the reasons given above for claim 24.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Horikiri et al. (5,765,154) teaches a resource management system which uses expression to request resource (Fig. 4A – 6).

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chongshan Chen whose telephone number is 703-305-8319. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703)305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 4, 2004


SHAHID ALAM
PRIMARY EXAMINER